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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/243,269	02/03/1999	HELENA G. KOAY	L0012/7006	2256

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EXAMINER

HYUN, SOON D

ART UNIT PAPER NUMBER

2663

DATE MAILED: 08/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SF

Office Action Summary	Application No. 09/243,269	Applicant(s) KOAY, HELENA G.	
	Examiner Soon D. Hyun	Art Unit 2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 28-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 39,40,43-47,52 and 53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

SOON HYUN
PATENT EXAMINER

Soon Hyun

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 04/18/2005 has been entered.
2. The indicated allowability of claims 28- 53 is withdrawn in view of the newly discovered reference(s) to PCT Publication No. WO 97/31458. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 28, 29, 35, 37, 38, 41, 42, 48, 50.and 54 are rejected Claims under 35 U.S.C. 102(b) as being anticipated by PCT Publication No. WO 97/31458

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Regarding claims 28, 29, 48, and 54, PCT Publication No. WO 97/31458 (PCT) discloses a system and method for network topology exploration, comprising:

two network devices (Node 102A and Node B in FIG. 1), each of the network devices comprising one network port (FIG. 10)

one communications path (106 in FIG. 1) interconnecting the network ports of each of the two network devices, each combination of communications path and interconnected network ports forming a network link (for claim 54); and

at least one controller (not shown, but it is inherently required in the Node A and Node B, respectively for communication each other) and performs the steps of:

detecting a network modification within the telecommunications network (page 9, lines 20-21 and 32-33);

causing the Node A to transmit a first port identification message (a ping frame 902A of FIG. 9b) to a successive network device (Router 104A) in the communications path, the first port identification message including Information regarding originally transmitting network device's perception of the successive network device's network link (routing information in a frame body 906A, see page 10, lines 23-28 and page 11, lines 1-2);

receiving (step 514 of FIG. 5) a second port identification message (an echo frame 908A of FIG. 9c) from the successive network device (Router 104A), the second port identification message including information regarding the

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successive network device's perception of its own network links (page 11, lines 25-28);

comparing the originally transmitting network device's perception of the successive network device's network link with the successive network device's perception of its own network links (the comparing step is not explicitly taught, but the step is inherently required for the following updating step); and

updating, if the at least one originally transmitting network device's perception of the successive network device's network links does not agree with the successive network device's perception of its own network link, the originally transmitting network device's perception of the successive network device's network link to agree the successive network device's perception of its own network links (page 10, line 37-page 12, line 3).

Regarding claim 35, the Node A and Router 104A are neighboring devices (see FIG.1).

Regarding claim 37, the echo frame transmitted by the Router includes a router identification code (page 11, lines 37-38).

Regarding claim 38, PCT further discloses that the Node 102 A is located at a beginning of the communication path (106 A in FIG. 1) and the Router 104 A is located at an end of the communication path.

Regarding claims 41 and 42, PCT further discloses that the network modification comprises an addition of a network device to the network and a reconfiguration of a network link (page 9, lines 20-21).

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Regarding claim 50, PCT does not explicitly teach that the connection between the Node A and Router 104 A is a logical connection. However, PCT teaches the network is a packet network based on layered protocols (page 2, lines 10-19). Therefore, it is inherent that a connection between the Node A and Router 104 A is a logical connection.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 30-34, 36, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over PCT Publication No. WO 97/31458 .

Regarding claims 30-32, PCT does not teach that the communication network is an optical communication network of SONET or SDH.

It would have been obvious to one having ordinary skill in the art to incorporate the method of PCT into SONET or SDH if unexpected results can be seen from the use of the method for SONET or SDH.

Regarding claims 33 and 34, refer to the discussion for claim 28. PCT does not explicitly disclose that the controller is co-located within the network device or located separately. It would have been obvious to one having ordinary

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skill in the art to locate the controller within the Node if no unexpected results can be seen from the location of the controller.

Regarding claim 36, PCT further teaches that each node has a unique identification code (page 6, lines 19-20). However, PCT does not explicitly teach that the routing information in the ping frame includes a device identity for the Node 102A and the router 104A. It would have been obvious to one having ordinary skill in the art to include a source address (an identification code for Node 102 A) and a destination address (an identification code for the Router 104 A) in the ping frame to identify a source and a destination for the frame.

Regarding claim 51, PCT does not teach that LAPD protocol is used for communicating between the Node A and Router 104 A. However, the PCT network inherently requires a data link layer protocol to communicate between the Node A and Router 104 A, because the PCT network is a packet network (page 2, lines 10-19) and the LAPD protocol is a well known for a data link layer protocol. Therefore, it would have been obvious to one having ordinary skill in the art to incorporate LAPD protocol into PCT if no unexpected results can be seen from using the LAPD protocol.

Allowable Subject Matter

7. Claims 39, 40, 43-47, 52-and 53 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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8. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fails to teach that the network device's perception of the network link comprises a device identity of the network device and the successive network device and any intermediate devices as recited in claim 39.

The prior art of record fails to teach that the successive network device's perception of the network link comprises a device identity of the successive network device and any intermediate devices as recited in claim 40.

The prior art of record fails to teach that the port identification message includes information regarding each of the two network device's perception of the network link as recited in claim 43.

The prior art of record fails to teach that each of the two network devices transmits port identification messages to network devices before and after each of the two network devices as recited in claims 47 and 52.

The prior art of record fails to teach repeating the steps until the perception of the links to agree as recited in claim 53.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Soon D. Hyun whose telephone number is 571-272-3121. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Q. Ngo can be reached on 571-272-3139. The fax

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phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



S. Hyun
07/24/2005